AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with the amendments marked with deleted material crossed out and new material underlined to show the changes made.

1. (Currently Amended) A method for sealing a computer program, said method comprising:

dividing said computer program into a plurality of pages, wherein said dividing is based on size of memory allocation in memory;

calculating a hash value for each of said pages;

creating a hash array with said hash values of said pages;

~~digitally signing said hash array to create~~ creating a digital signature for said hash array; and

grouping said computer program with said hash array and said digital signature.

2. (Currently Amended) The method as recited in claim 1, wherein calculating said hash value comprises calculating a SHA hash value.

3. (Original) The method as recited in claim 1 further comprising:

distributing said computer program, said hash array, and said digital signature.

4. (Currently Amended) The method as recited in claim 2, wherein ~~digitally signing said hash array to create~~ creating a digital signature for said hash array comprises:

calculating an array hash value for said hash array; and

digitally signing said array hash value.

5. (Original) The method as recited in claim 4, wherein digitally signing said array hash value comprises creating said digital signature with a private key and a public key encryption key function.

6. (Original) The method as recited in claim 1, wherein grouping said computer program with said hash array and said digital signature comprises storing said computer program, said hash array, and said digital signature together.

7. (Original) The method as recited in claim 1, wherein said computer program comprises an operating system.

8. (Currently Amended) A method for authenticating a computer program, said method comprising:

verifying the authenticity of a hash ~~value~~ array that accompanied said computer program by using a digital signature of said hash ~~value~~ array that accompanied said computer program, wherein prior to verifying the authenticity of the hash array, said computer program was divided into a plurality of pages based on size of memory allocation in memory;

loading a page from the plurality of pages of said computer program;

calculating a ~~calculated~~ hash value for said loaded page ~~of said computer program~~;

comparing said calculated hash value for said loaded page ~~of said computer program~~ with an associated hash value for said loaded page ~~of said computer program~~ from said hash ~~value~~ array; and

generating an error if said calculated hash value for said loaded page ~~of said computer program~~ does not match said associated hash value.

9. (Currently Amended) The method as recited in claim 8, wherein verifying the authenticity of said hash ~~value~~ array comprises~~.~~ :

calculating an array hash value for an array of hash values that accompanies said computer program; and

comparing said array hash value with said digital signature of said hash ~~value~~ array using a public key.

10. (Currently Amended) The method as recited in claim 8, wherein verifying the authenticity of ~~a~~ the hash ~~value~~ array that accompanied said computer program by using ~~a~~ the digital signature of said hash ~~value~~ array comprises testing said digital signature with a public key and public key encryption key function.

11. (Currently Amended) The method as recited in claim 8 further comprising repeating said steps of loading, calculating, comparing, and generating as additional pages from the plurality of pages of said computer program are needed for execution.

12. (Currently Amended) The method as recited in claim 8, wherein calculating said calculated hash value comprises calculating a SHA hash value.

13. (Currently Amended) The method as recited in claim 8, wherein generating said error if said calculated hash value for said loaded page ~~of said computer program~~ does not match said associated hash value comprises indicating a page fault.

14. (Currently Amended) The method as recited in claim 8, wherein generating said error if said calculated hash value for said loaded page ~~of said computer program~~ does not match said associated hash value comprises indicating a page read error.

15. (Currently Amended) The method as recited in claim 8, wherein generating said error if said calculated hash value for said loaded page ~~of said computer program~~ does not match said associated hash value comprises indicating a verification error.

16. (Currently Amended) The method as recited in claim 8, wherein said computer program comprises an operating system.

17. (Currently Amended) The method as recited in claim 8 further comprising~~.~~:

swapping out said hash ~~value~~ array; and

re-verifying the authenticity of said hash ~~value~~ array after swapping said hash ~~value~~ array back in.

18. (Currently Amended) A computer-readable medium comprising ~~containing~~ a set of computer instructions, said computer instructions for authenticating a computer program by:

verifying the authenticity of a hash ~~value~~ array that accompanied said computer program by using a digital signature of said hash ~~value~~ array that accompanied said computer program, wherein prior to the computer instructions verifying the authenticity of the hash array, said computer program was divided into a plurality of pages based on size of memory allocation in memory;

loading a page from the plurality of pages of said computer program;

calculating a ~~calculated~~ hash value for said loaded page ~~of said computer program~~;

comparing said calculated hash value for said loaded page ~~of said computer program~~ with an associated hash value for said loaded page ~~of said computer program~~ from said hash ~~value~~ array; and

generating an error if said calculated hash value for said loaded page ~~of said computer program~~ does not match said associated hash value.

19. (Currently Amended) The computer-readable medium as recited in claim 18, wherein verifying the authenticity of said hash value array comprises~~.~~;

calculating an array hash value for an array of hash values that accompanies said computer program; and

comparing said array hash value with said digital signature of said hash ~~value~~ array using a public key.

20. (Currently Amended) The computer-readable medium as recited in claim 18, wherein verifying the authenticity of ~~a~~ the hash ~~value~~ array that accompanied said computer program by using ~~a~~ the digital signature of said hash ~~value~~ array comprises testing said digital signature with a public key and a public key encryption key function.